

SEQUENCE LISTING

<110> PROCYON BIOPHARMA INC.
 <120> PHARMACEUTICAL PREPARATIONS AND METHODS FOR INHIBITING TUMORS
 <130> 06508-030-us-03
 <150> 2,321,256
 <151> 2000-10-16
 <150> 2,355,334
 <151> 2001-08-20
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Lys Cys Met Asp Leu Lys Gly Asn Lys His Pro Ile Asn Ser Glu Trp
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Gln Thr Asp Asn Cys Glu Thr Cys Thr Tyr Glu Thr Glu Ile Ser
          35           40           45

Cys Cys Thr Leu Val Ser Thr Pro Val Gly Tyr Asp Lys Asp Asn Cys
          50           55           60

Gln Arg Ile Phe Lys Lys Glu Asp Cys Lys Tyr Ile Val Val Glu Lys
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Lys Asp Pro Lys Lys Thr Cys Ser Val Ser Glu Trp Ile Ile
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Gly Val Pro Gly Asp Ser Thr Arg Lys Cys Met Asp Leu Lys Gly Asn
          20           25           30

Lys His Pro Ile Asn Ser Glu Trp Gln Thr Asp Asn Cys Glu Thr Cys
          35           40           45

Thr Cys Tyr Glu Thr Glu Ile Ser Cys Cys Thr Leu Val Ser Thr Pro
          50           55           60

Val Gly Tyr Asp Lys Asp Asn Cys Gln Arg Ile Phe Lys Lys Glu Asp
65           70           75           80

Cys Lys Tyr Ile Val Val Glu Lys Lys Asp Pro Lys Lys Thr Cys Ser
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Val Ser Glu Trp Ile Ile
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Tyr Thr Cys Ser Val Ser Glu Pro Gly Ile
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Asn Glu Gly Val Pro Gly Asp Ser Thr Arg Lys Cys Met Asp Leu
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1 5 10 15

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Ile Val Val Glu Lys Lys Asp Pro Lys Lys Thr Cys Ser Val Ser Glu
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Trp Ile Ile

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Ile

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Glu Trp Gln Thr Asp Asn Cys Glu Thr Cys Thr Cys Tyr Glu Thr Glu
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Ile Ser

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Ile Ser Cys

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Glu Trp Gln Thr Asp Asn Cys Glu Thr Cys Thr Cys Tyr Glu Thr Glu
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Glu Trp Gln Thr Asp Asn Cys Glu Thr Cys Thr Cys Tyr Glu Thr Glu
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Ile Ser Cys Cys Thr Leu Val Ser Thr Pro Val Gly Tyr Asp
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Ile Ser Cys Cys Thr Leu Val Ser Thr Pro Val Gly Tyr Asp Lys
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Ile Ser Cys Cys Thr Leu Val Ser Thr Pro Val Gly Tyr Asp Lys Asp
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Glu Trp Gln Thr Asp Asn Cys Glu Thr Cys Thr Cys Tyr Glu Thr Glu
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Asn

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<211> 34

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Ile Ser Cys Cys Thr Leu Val Ser Thr Pro Val Gly Tyr Asp Lys Asp
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Asn Cys

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Ile Ser Cys Cys Thr Leu Val Ser Thr Pro Val Gly Tyr Asp Lys Asp
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Asn Cys Gln
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Asn Cys Gln Arg
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Asn Cys Gln Arg Ile Phe
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Asn Cys Gln Arg Ile Phe Lys
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Asn Cys Gln Arg Ile Phe Lys Lys
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Ile Ser Cys Cys Thr Leu Val Ser Thr Pro Val Gly Tyr Asp Lys Asp
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Asn Cys Gln Arg Ile Phe Lys Lys Glu
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Ile Ser Cys Cys Thr Leu Val Ser Thr Pro Val Gly Tyr Asp Lys Asp
20 25 30
Asn Cys Gln Arg Ile Phe Lys Lys Glu Asp
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Ile Ser Cys Cys Thr Leu Val Ser Thr Pro Val Gly Tyr Asp Lys Asp
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Asn Cys Gln Arg Ile Phe Lys Lys Glu Asp Cys Lys
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20 25 30
Asn Cys Gln Arg Ile Phe Lys Lys Glu Asp Cys Lys Tyr Ile
35 40 45

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Ile Ser Cys Cys Thr Leu Val Ser Thr Pro Val Gly Tyr Asp Lys Asp
20 25 30
Asn Cys Gln Arg Ile Phe Lys Lys Glu Asp Cys Lys Tyr Ile Val
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Ile Ser Cys Cys Thr Leu Val Ser Thr Pro Val Gly Tyr Asp Lys Asp
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Asn Cys Gln Arg Ile Phe Lys Lys Glu Asp Cys Lys Tyr Ile Val Val
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Asn Cys Gln Arg Ile Phe Lys Lys Glu Asp Cys Lys Tyr Ile Val Val
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Glu

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Asn Cys Gln Arg Ile Phe Lys Lys Glu Asp Cys Lys Tyr Ile Val Val
35 40 45

Glu Lys
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Glu Lys Lys
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Asn Cys Gln Arg Ile Phe Lys Lys Glu Asp Cys Lys Tyr Ile Val Val
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Glu Lys Lys Asp
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Glu Trp Gln Thr Asp Asn Cys Glu Thr Cys Thr Cys Tyr Glu Thr Glu
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Ile Ser Cys Cys Thr Leu Val Ser Thr Pro Val Gly Tyr Asp Lys Asp
20 25 30
Asn Cys Gln Arg Ile Phe Lys Lys Glu Asp Cys Lys Tyr Ile Val Val
35 40 45
Glu Lys Lys Asp Pro
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Glu Trp Gln Thr Asp Asn Cys Glu Thr Cys Thr Cys Tyr Glu Thr Glu
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Ile Ser Cys Cys Thr Leu Val Ser Thr Pro Val Gly Tyr Asp Lys Asp
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Glu Lys Lys Asp Pro Lys
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 Ile Ser Cys Cys Thr Leu Val Ser Thr Pro Val Gly Tyr Asp Lys Asp
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 Asn Cys Gln Arg Ile Phe Lys Lys Glu Asp Cys Lys Tyr Ile Val Val
 35 40 45
 Glu Lys Lys Asp Pro Lys Lys
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 Ile Ser Cys Cys Thr Leu Val Ser Thr Pro Val Gly Tyr Asp Lys Asp
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 Asn Cys Gln Arg Ile Phe Lys Lys Glu Asp Cys Lys Tyr Ile Val Val
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 Glu Lys Lys Asp Pro Lys Lys Thr
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Asn Cys Gln Arg Ile Phe Lys Lys Glu Asp Cys Lys Tyr Ile Val Val
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35 40 45

Glu Lys Lys Asp Pro Lys Lys Thr Cys Ser Val Ser Glu
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Asn Cys Gln Arg Ile Phe Lys Lys Glu Asp Cys Lys Tyr Ile Val Val
35 40 45

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Asn Cys Gln Arg Ile Phe Lys Lys Glu Asp Cys Lys Tyr Ile Val Val
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Glu Lys Lys Asp Pro Lys Lys Thr Cys Ser Val Ser Glu Trp Ile
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Asn Cys Gln Arg Ile Phe Lys Lys Glu Asp Cys Lys Tyr Ile Val Val
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Glu Lys Lys Asp Pro Lys Lys Thr Cys Ser Val Ser Glu Trp Ile Ile
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<210> SEQ ID NO: 60

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Thr

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Glu Thr

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Tyr Glu Thr

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Cys Tyr Glu Thr
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Thr Cys Tyr Glu Thr
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 1 5 10 15

Cys Thr Cys Tyr Glu Thr
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Gly Asn Lys His Pro Ile Asn Ser Glu Trp Gln Thr Asp Asn Cys Glu
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Thr Cys Thr Cys Tyr Glu Thr
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Glu Thr Cys Thr Cys Tyr Glu Thr
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Leu Lys Gly Asn Lys His Pro Ile Asn Ser Glu Trp Gln Thr Asp Asn
 1 5 10 15
 Cys Glu Thr Cys Thr Cys Tyr Glu Thr
 20 25

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Asp Leu Lys Gly Asn Lys His Pro Ile Asn Ser Glu Trp Gln Thr Asp
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 Asn Cys Glu Thr Cys Thr Cys Tyr Glu Thr
 20 25

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Met Asp Leu Lys Gly Asn Lys His Pro Ile Asn Ser Glu Trp Gln Thr
 1 5 10 15
 Asp Asn Cys Glu Thr Cys Thr Cys Tyr Glu Thr
 20 25

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Cys Met Asp Leu Lys Gly Asn Lys His Pro Ile Asn Ser Glu Trp Gln
 1 5 10 15
 Thr Asp Asn Cys Glu Thr Cys Thr Cys Tyr Glu Thr
 20 25

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Lys Cys Met Asp Leu Lys Gly Asn Lys His Pro Ile Asn Ser Glu Trp
 1 5 10 15

Gln Thr Asp Asn Cys Glu Thr Cys Thr Cys Tyr Glu Thr
 20 25

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Arg Lys Cys Met Asp Leu Lys Gly Asn Lys His Pro Ile Asn Ser Glu
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Trp Gln Thr Asp Asn Cys Glu Thr Cys Thr Cys Tyr Glu Thr
 20 25 30

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Thr Arg Lys Cys Met Asp Leu Lys Gly Asn Lys His Pro Ile Asn Ser
 1 5 10 15

Glu Trp Gln Thr Asp Asn Cys Glu Thr Cys Thr Cys Tyr Glu Thr
 20 25 30

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Ser Thr Arg Lys Cys Met Asp Leu Lys Gly Asn Lys His Pro Ile Asn
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Ser Glu Trp Gln Thr Asp Asn Cys Glu Thr Cys Thr Cys Tyr Glu Thr
 20 25 30

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Asp Ser Thr Arg Lys Cys Met Asp Leu Lys Gly Asn Lys His Pro Ile
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Asn Ser Glu Trp Gln Thr Asp Asn Cys Glu Thr Cys Thr Cys Tyr Glu
 20 25 30

Thr

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Gly Asp Ser Thr Arg Lys Cys Met Asp Leu Lys Gly Asn Lys His Pro
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Ile Asn Ser Glu Trp Gln Thr Asp Asn Cys Glu Thr Cys Thr Cys Tyr
20 25 30
Glu Thr

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Pro Gly Asp Ser Thr Arg Lys Cys Met Asp Leu Lys Gly Asn Lys His
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Pro Ile Asn Ser Glu Trp Gln Thr Asp Asn Cys Glu Thr Cys Thr Cys
20 25 30
Tyr Glu Thr
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Val Pro Gly Asp Ser Thr Arg Lys Cys Met Asp Leu Lys Gly Asn Lys
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His Pro Ile Asn Ser Glu Trp Gln Thr Asp Asn Cys Glu Thr Cys Thr
20 25 30
Cys Tyr Glu Thr
35

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Gly Val Pro Gly Asp Ser Thr Arg Lys Cys Met Asp Leu Lys Gly Asn
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Lys His Pro Ile Asn Ser Glu Trp Gln Thr Asp Asn Cys Glu Thr Cys
20 25 30
Thr Cys Tyr Glu Thr
35

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Glu Gly Val Pro Gly Asp Ser Thr Arg Lys Cys Met Asp Leu Lys Gly
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 Asn Lys His Pro Ile Asn Ser Glu Trp Gln Thr Asp Asn Cys Glu Thr
 20 25 30
 Cys Thr Cys Tyr Glu Thr
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Asn Glu Gly Val Pro Gly Asp Ser Thr Arg Lys Cys Met Asp Leu Lys
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 Gly Asn Lys His Pro Ile Asn Ser Glu Trp Gln Thr Asp Asn Cys Glu
 20 25 30
 Thr Cys Thr Cys Tyr Glu Thr
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Pro Asn Glu Gly Val Pro Gly Asp Ser Thr Arg Lys Cys Met Asp Leu
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 Lys Gly Asn Lys His Pro Ile Asn Ser Glu Trp Gln Thr Asp Asn Cys
 20 25 30
 Glu Thr Cys Thr Cys Tyr Glu Thr
 35 40

<210> SEQ ID NO: 84
 <211> 41
 <212> PRT
 <213>
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Ile Pro Asn Glu Gly Val Pro Gly Asp Ser Thr Arg Lys Cys Met Asp
 1 5 10 15
 Leu Lys Gly Asn Lys His Pro Ile Asn Ser Glu Trp Gln Thr Asp Asn
 20 25 30
 Cys Glu Thr Cys Thr Cys Tyr Glu Thr
 35 40

<210> SEQ ID NO: 85
 <211> 42
 <212> PRT
 <213>
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Phe Ile Pro Asn Glu Gly Val Pro Gly Asp Ser Thr Arg Lys Cys Met
 1 5 10 15
 Asp Leu Lys Gly Asn Lys His Pro Ile Asn Ser Glu Trp Gln Thr Asp
 20 25 30
 Asn Cys Glu Thr Cys Thr Cys Tyr Glu Thr
 35 40

<210> SEQ ID NO: 86
 <211> 43
 <212> PRT
 <213>
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Tyr Phe Ile Pro Asn Glu Gly Val Pro Gly Asp Ser Thr Arg Lys Cys
 1 5 10 15
 Met Asp Leu Lys Gly Asn Lys His Pro Ile Asn Ser Glu Trp Gln Thr
 20 25 30
 Asp Asn Cys Glu Thr Cys Thr Cys Tyr Glu Thr
 35 40

<210> SEQ ID NO: 87
 <211> 44
 <212> PRT
 <213>
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Cys Tyr Phe Ile Pro Asn Glu Gly Val Pro Gly Asp Ser Thr Arg Lys
 1 5 10 15
 Cys Met Asp Leu Lys Gly Asn Lys His Pro Ile Asn Ser Glu Trp Gln
 20 25 30
 Thr Asp Asn Cys Glu Thr Cys Thr Cys Tyr Glu Thr
 35 40

<210> SEQ ID NO: 88
 <211> 45
 <212> PRT
 <213>
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Ser Cys Tyr Phe Ile Pro Asn Glu Gly Val Pro Gly Asp Ser Thr Arg
 1 5 10 15
 Lys Cys Met Asp Leu Lys Gly Asn Lys His Pro Ile Asn Ser Glu Trp
 20 25 30

Gln Thr Asp Asn Cys Glu Thr Cys Thr Cys Tyr Glu Thr

35

40

45

<210> SEQ ID NO: 89

<211> 15

<212> PRT

<213>

<220>

<221> Modified site

<222> 1

<223> The residue in this position is either glutamic acid, asparagin, or aspartic acid.

<220>

<221> Modified site

<222> 4

<223> The residue in this position is either threonine, or serine.

<220>

<221> Modified site

<222> 6

<223> The residue in this position is either glutamic acid, asparagin, or aspartic acid.

<220>

<221> Modified site

<222> 8

<223> The residue in this position is either glutamic acid, asparagin, or aspartic acid.

<220>

<221> Modified site

<222> 9

<223> The residue in this position is either threonine, or serine.

<220>

<221> Modified site

<222> 11

<223> The residue in this position is either threonine, or serine.

<220>

<221> Modified site

<222> 13

<223> The residue in this position is either tyrosine, or phenylalanine.

<220>

<221> Modified site

<222> 14

<223> The residue in this position is either glutamic acid, asparagin, or aspartic acid.

<220>

<221> Modified site

<222> 15

<223> The residue in this position is either threonine, or serine.

<400>

Xaa Trp Gln Xaa Asp Xaa Cys Xaa Xaa Cys Xaa Cys Xaa Xaa Xaa

1

5

10

15

<210> SEQ ID NO: 90
 <211> 30
 <212> PRT
 <213>
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Glu Trp Gln Thr Asp Asn Cys Glu Thr Cys Thr Cys Tyr Glu Thr Glu
 1 5 10 15
 Trp Gln Thr Asp Asn Cys Glu Thr Cys Thr Cys Tyr Glu Thr
 20 25 30

<210> SEQ ID NO: 91
 <211> 45
 <212> PRT
 <213>
 <400>

Glu Trp Gln Thr Asp Asn Cys Glu Thr Cys Thr Cys Tyr Glu Thr Glu
 1 5 10 15
 Trp Gln Thr Asp Asn Cys Glu Thr Cys Thr Cys Tyr Glu Thr Glu Trp
 20 25 30
 Gln Thr Asp Asn Cys Glu Thr Cys Thr Cys Tyr Glu Thr
 35 40 45

<210> SEQ ID NO: 92
 <211> 60
 <212> PRT
 <213>
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Glu Trp Gln Thr Asp Asn Cys Glu Thr Cys Thr Cys Tyr Glu Thr Glu
 1 5 10 15
 Trp Gln Thr Asp Asn Cys Glu Thr Cys Thr Cys Tyr Glu Thr Glu Trp
 20 25 30
 Gln Thr Asp Asn Cys Glu Thr Cys Thr Cys Tyr Glu Thr Glu Trp Gln
 35 40 45
 Thr Asp Asn Cys Glu Thr Cys Thr Cys Tyr Glu Thr
 50 55 60